



☐ DESIGN ☒ UTILITY PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: David R. Payne, Gerald A. Stangl,  
Norman E. Stevens, Jr., and Michael  
F. Gard

Serial No: 10/617,975

Filed: July 12, 2003

For: SYSTEM AND METHOD FOR  
AUTOMATICALLY DRILLING AND  
BACKREAMING A HORIZONTAL BORE  
UNDERGROUND

Att'y Dkt. No.: 082380-00561

Art Unit: 3671

Examiner: Not Yet Assigned

Customer No.: 28839

Mail Stop Amendment  
Commissioner For Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**AMENDMENT AND RESPONSE TO OFFICE ACTION**  
**MAILED JULY 2, 2004**

Applicant respectfully requests that the above application be amended as follows:

**In the claims**

Claims 1-3. Withdrawn.

4. (Currently Amended) A method for backreaming a horizontal borehole,  
the method comprising:

automatically rotating and pulling a drill string having a backreamer through the  
horizontal borehole;

5 automatically reducing a length of the drill string ~~when the drill string must be~~  
~~shortened~~;

automatically reducing a rate of pullback if a rotation pressure on the drill string is  
greater than a predetermined limit; and